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## **ABSTRACT**

A method and application programming interface for using multiple network addresses on a common physical layer. The host protocol stack supports multiple Internet Protocol interfaces. When a process makes a function call to create a new socket, a new IP address is associated with the socket. Each socket is then bound to an IP address that is distinct from the IP addresses bound to other sockets. This is in contrast to conventional sockets that are bound to a common IP address. In this manner, each process may be associated with a unique IP address. Such a configuration may useful in Internet telephony where each call process receives a unique private IP address in a virtual private network.